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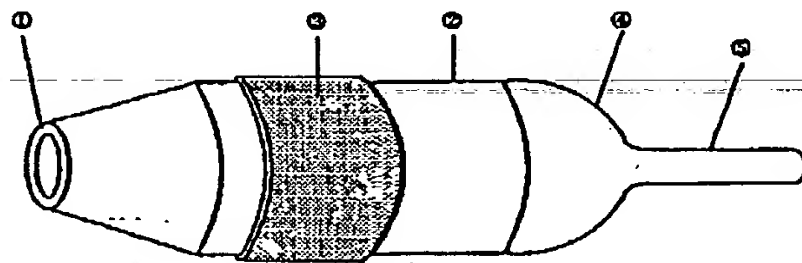
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(54)【発明の名称】 男性用採尿カテーテル陰茎接続部

(57)【要約】

【目的】男性用採尿カテーテルは長時間に亘って使用されるため、液密にすると同時に患者にとって使いやすく、使い心地の良いものにする必要がある。

【構成】男性用採尿カテーテルの大径の管状部外側面に粘着性物質を塗布し、開口部に龟头部を押し当て、押し進めることによって簡単に装着でる、使用時の違和感を軽減した採尿カテーテル陰茎接続部を完成した。



【特許請求の範囲】

【請求項 1】一端が導尿管を介して尿採取容器に接続可能な細径の管状部の他端が、テーパ状部を経由して大径の管状部と一体的に接続し、該大径の管状部の他端は亀頭がわずかにひっかかり、亀頭により該大径の管状部内へ押し込まれ得るように設けた、プラスターパ、マイナスターパまたは直角状の開口部を有し、該大径の管状部外側面に、陰茎に固定し、液密とするための粘着性物質を塗布したことを特徴とする、男性用採尿カテーテル陰茎接続部。

【発明の詳細な説明】

【0001】

【産業上の利用分野】この発明は男性用採尿カテーテル陰茎接続部に関するものである。

【0002】

【従来の技術】男性用採尿カテーテル陰茎接続部は、一般に可撓性の大径管部を有し、これを陰茎に接続して液密性とし、導尿管を介して尿採取容器に接続するタイプのものが多く使用されており、該容器は身体に装着するか、または患者の近くに置かれる。

【0003】

【発明が解決しようとする課題】この種の男性用採尿カテーテル陰茎接続部に関する問題点としては、長時間にわたって連続装着して使用するため、完全な液密性があり、感染防止性があり、装着が容易であり、かつ違和感の少ないものでなければならぬ、などの点があげられる。これらの問題点を解決するための 1 つの方法は、コンドーム状の大径の管状部の上を、テープを巻いて縛ることであった。しかしこの方法は、陰茎が過度に締め付けられ易く、満足できるものではなかった。また、装着に先立って、該コンドーム状の大径管状部の下になる部分の陰茎に、柔軟性の両面テープを巻き付けておくものもあったが、この方法では特殊の両面粘着テープや、これを切るための鉋などを準備する必要がある上、装着は繁雑となり、液密性を確保するためには若干の熟練を要し、時間がかかる作業も必要であった。さらにまたこの方法は所要時間および装着の容易さに問題があり、患者自身で装着しようとする場合、手先が良く利かなくなった患者にとっては厄介であるなどの難点があった。また、従来技術における該接続部の構成は、いずれも巻き上げた状態で患者に供給され、使用時に陰茎に沿って被せていく比較的長いコンドーム状の大径管状部を必要とする。該大径管状部を陰茎に沿って被せていく場合、しわの発生により漏れを生じるなどのためこれを慎重に行わなければならない、ここでも相当な時間と労力を必要とするものであった。また、尿採取容器に接続し得るようにした細径の管状部と、この管状部と一体に接続したテーパ状部の内側に粘着物質を塗布して、亀頭のみ粘着させて装着するもの、陰茎に粘着させるものもあるが、それらのうち亀頭のみ粘着させるものは、尿の流れが

スムーズに行われず、圧迫感があり、使用中に脱落したり、漏れを生じやすいものであった。更に大きな欠点は亀頭部の柔らかい組織に炎症を生ぜしめることである。陰茎に粘着させて装着するタイプのものは常に亀頭が尿中に浸漬された状態になるため、亀頭のみ粘着させる場合と同様、亀頭部を粗らし、雑菌の繁殖により亀頭部に炎症をおこし易かった。従来の男性用採尿カテーテルの陰茎接続部は上述の如くであり、使い易さと安全性の両面で患者を満足させるものは完成されていないのが現状である。

【0004】

【課題を解決するための手段】この発明はこのような事情に鑑みてなされたものであり、亀頭がわずかにひっかかる開口部を設け、大径の管状部の外側面に粘着性物質を塗布し、亀頭が押し込まれるにつれて、該大径の管状部が巻き込まれて陰茎表面で反転し、陰茎に粘着・固定されるように構成することにより、この発明を完成した。

【0005】

20 【発明の構成】一端が尿採取容器に接続し得るようにした、細径の管状部の他端が、テーパ状部を経由して大径の管状部と一体的に接続し、該大径の管状部の他端は亀頭がわずかにひっかかり、亀頭により該大径の管状部内へ押し込まれ得るように設けた、プラスターパ、マイナスターパまたは直角状の開口部を有し、該大径の管状部外側面には陰茎に粘着・固定し、液密とするための粘着性物質を塗布したことを特徴とする、男性用採尿カテーテル陰茎接続部に関するものである。以下にこの発明の構成について詳しく説明する。前記したように、細径の管状部は一端が開口しており、導尿管などとの接続を可能にする。該細径の管状部と一体に接続している部分はテーパ状をなしており、尿がスムーズに流れるようになっている。テーパ状部の肉厚は、薄すぎるとキンキングなどにより尿の流れが滞ることがあるので、やや厚めの方が望ましい。更に該テーパ状部の他端は大径の管状部に一体的に接続し、該大径の管状部の外側面には粘着性物質を塗布している。粘着性物質は大径の管状部全体に塗布してもよく、部分的に塗布してもよいが、部分的に塗布する場合にも、尿漏れを防止するため全周上に切れ目なく塗布する必要がある。該大径の管状部は直径が均一でも、多少テーパ状になっていてもよく、粘着性物質が均一に塗布されており、尿漏れを防止できるものであればよい。この大径の管状部は更にその次の、亀頭がわずかにひっかかるプラスターパ、マイナスターパまたは直角状の、開口を有する部分に一体的に接続している。この開口部は亀頭の尿道口が貫通するものであれば、どんな形状でもよい。即ち、この男性用採尿カテーテル陰茎接続部は、プラスターパ、マイナスターパまたは直角状の開口部に亀頭の先端を押しあてて押し進めることによ

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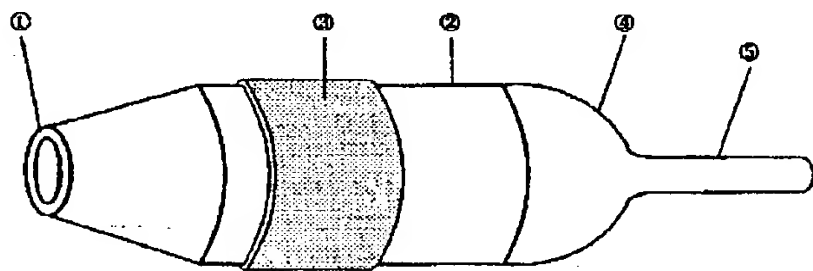
き込まれ、大径の管状部の外側面に塗布されている粘着性物質により、陰茎に粘着・固定させるようにして、この発明を完成した。この男性用採尿カテーテル陰茎接続部の使用により、装着に時間がかからず、比較的手の不自由な人でも容易に装着することが出来るようになり、亀頭部表面の炎症問題も解消した。なお、大径の管状部の外側面に塗布した粘着性物質の上に易剥離性の保護被膜を巻いておき、取り除いてから使用することも自由である。

【0006】

【実施例】以下に実施例によって、この発明を更に具体的に説明するが、本発明は実施例そのものに限定されるものではない。

【実施例1】本発明の男性用採尿カテーテル陰茎接続部の全容を図1で示した。この男性用採尿カテーテルは陰茎⑧に装着され、その他端の細径の管状部⑤は継手⑥に連結し、この継手⑥は、尿採取容器に導尿管⑦を介して接続した。本発明の男性用採尿カテーテル陰茎接続部は、4つの主要部、即ちテーパ状部④、大径の管状部②、開口部①、および細径の管状部⑤を含む天然ゴム系弾性材料の連続体で形成した。男性用採尿カテーテル陰茎接続部の細径の管状部⑤には、図2に示すように継手⑥を挿入し、その他端は採尿容器に接続する導尿管⑦に接続した。テーパ状部④は略円錐形とし、大径の管状部②は亀頭⑨が容易に挿入されるようにするため、陰茎⑧の最大膨脹径より直径で5mm以上大きくし、また大径の管状部②の外側面には、粘着性物質を塗布した部分③を設けた。このようにしてなる男性用採尿カテーテル陰茎接続部の開口部①に、亀頭の先端を当てて押し進め、陰茎への装着を試みたところ、尿道口全体が開口部①を

【図1】



突き抜け、開口部①に亀頭⑨が3分の2程度突き出した位置で留まり、該男性用採尿カテーテル陰茎接続部は、粘着性物質により陰茎に粘着・固定され、液密状態の保持が可能になった。

【0007】

【発明の効果】本発明は実施例を用いて詳述したように、男性用採尿カテーテル陰茎接続部の開口部に亀頭を押し当て、押し込むことによって、大径の管状部の外側面が陰茎に沿って内側に巻き込まれ、大径の管状部の外側面に塗布した粘着性物質により陰茎に粘着・固定化され、カテーテル陰茎接続部の陰茎からの脱落や尿の漏洩をみることなく、目的を達することが可能になった。このカテーテルは簡単かつ速やかな装着が可能であり、装着の確実性も高いことから、この発明は誠に有意義な発明であるといえることができる。

【図面の簡単な説明】

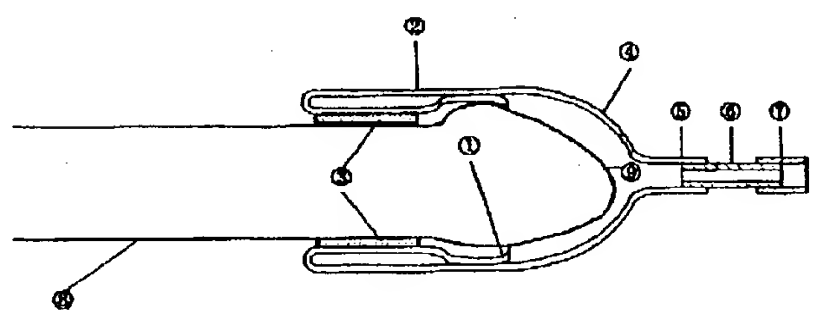
【図1】男性用採尿カテーテル陰茎接続部の斜視図

【図2】男性用採尿カテーテル陰茎接続部、継手および導尿管の一部を示す断面図

【符号の説明】

- ①. 開口部
- ②. 大径の管状部
- ③. 粘着剤塗布部
- ④. テーパ状部
- ⑤. 細径の管状部
- ⑥. 継手
- ⑦. 導尿管
- ⑧. 陰茎
- ⑨. 亀頭

【図2】



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(54)[TITLE of the Invention] The urine-sampling catheter penis connection part for males

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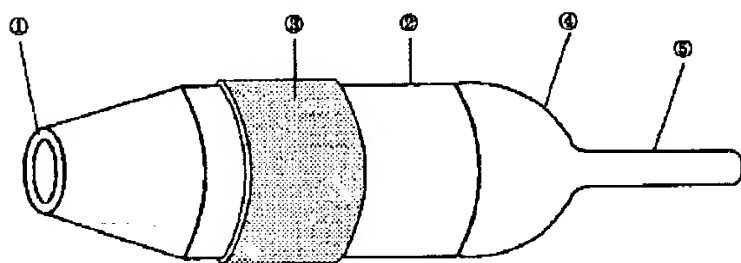
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(57)[ABSTRACT of the Disclosure]

[PURPOSE] Since the urine-sampling catheter for males is used over a long time, while carrying out it fluid-tightly, it is easy to use it for a patient, and it is necessary to make it into what has a good usage feeling.

[CONSTITUTION] An adhesive substance is applied to the tubular-shape outside side face of the large diameter of the urine-sampling catheter for males, and the urine-sampling catheter penis connection part which lightened the sense of incongruity at the time of use were easily perfected by wearing by pressing and pushing the glans section to a vent.



[CLAIMS]

[CLAIM 1] A urine-sampling catheter penis connection part for males, in which the other end of the tubular-shape section of the narrow diameter which one end can connect to a urine collection container through the urine withdrawing pipe goes along the taper-shaped section, and connects with the tubular-shape section of a large diameter integrally, and the other end of the tubular-shape section of this large diameter has the vent of the shape of a plus taper, a minus taper, or a right angle which the glans was caught slightly, and was established so that it might be pushed into the tubular-shape circles of this large diameter by the glans, it fixes to the tubular-shape outside side face of this large diameter at a penis, and the adhesive substance for making it fluid-tight was applied.

[DETAILED DESCRIPTION of the INVENTION]

[0001]

[INDUSTRIAL APPLICATION] This invention relates to the urine-sampling catheter penis connection part for males.

[0002]

[PRIOR ART] Generally the urine-sampling catheter penis connection part for males has a flexible large-diameter-pipe section, this is connected to a penis and it is made fluid-tight, and much one of the type connected to a urine collection container through the urine withdrawing pipe is used, and the body is equipped with this container or it is put near the patient.

[0003]

[PROBLEM to be solved by the Invention] In order to use it over a long time as a problem about this kind of urine-sampling catheter penis connection part for males, carrying out continuous wearing, there is a perfect fluid-tight characteristic.

There is an infection prevention.

Wearing is easy.

And it mentions the point of having to be one with less sense of incongruity.

One method for solving these problems was winding a tape and binding the tubular-shape section top of a condom-like large diameter.

However, this method tended to bind a penis too tightly and was not satisfactory. Moreover, in advance of wearing, there were some which wind the double-sided tape of a softness around the penis of the part which becomes the bottom of the large-diameter-pipe-like section of the shape of this condom.

However, by this method, when it is necessary to provide a special double-sided adhesive tape, the scissors for cutting this, etc., wearing becomes complicated, some skill is required in order to ensure a fluid-tight characteristic, operation which requires time was also required.

This method further has a problem in a duration and the ease of wearing again. When the patient himself tried to put it on, there was the problem that it was troublesome for a patient whose hand was not good and the effect was lost.

Moreover, each composition of this connection part in a prior art is supplied to a

patient in the state where it wound up, and the large-diameter-pipe-like section of the shape of a comparatively long condom put along the penis is needed at the time of use.

When putting this large-diameter-pipe-like section along the penis, it was what must perform this carefully for producing leakage by the production of a wrinkle etc., and needs considerable time and a considerable labor also here.

Moreover, the adhesion matter is applied inside the tubular-shape section of the narrow diameter it enabled it to connect to a urine collection container, and the taper-like section integrally connected with this tubular-shape section, and there was also that with which only the glans is made to adhere and it equips, and one which a penis is made to adhere.

However, a urinary flow is not performed smoothly but one which only the glans is made to adhere among them has a feeling of oppression.

It dropped off while in use, and was what is easy to produce leakage.

Furthermore, a major fault is making the soft tissue of the glans section produce inflammation.

Since one of the type with which a penis is made to adhere and it equips will always immerse the glans in urine, the glans section is crude carried out like the case where only the glans is made to adhere, and it was easy to cause inflammation in the glans section by reproduction of various micro-organisms.

The penis connection part of the conventional urine-sampling catheter for males comes out as mentioned above.

The present condition is that what satisfies a patient on both surfaces of the ease of using and safety is not perfected.

[0004]

[MEANS to solve the Problem] This invention was made in view of such a situation.

The glans sets the vent caught slightly and applies an adhesive substance to the outside face of the tubular-shape section of a large diameter, the tubular-shape section of this large diameter is engulfed, and it is reversed on the penis surface as the glans is pushed in, this invention was perfected by forming so that a penis may be adhered * fixed.

[0005]

[CONSTITUTION] The other end of the tubular-shape section of a narrow diameter the one end enabled it to connect to a urine collection container goes the taper-like section, and connects with the tubular-shape section of a large diameter integrally, the other end of the tubular-shape section of this large diameter has the vent of the shape of a plus taper, a minus taper, or a right angle which the glans was caught slightly, and was established so that it might be pushed into the tubular-shape circles of this large diameter by the glans, and on the tubular-shape outside side face of this large diameter, it adheres * fixes at a penis, and the adhesive substance for considering as fluid-tight was applied. It is related with the urine-sampling catheter penis connection part for males characterized by the above-mentioned.

The composition of this invention is demonstrated in detail below.

As above-mentioned, the one end is opening the tubular-shape section of a narrow diameter, the connection with the urine withdrawing pipe etc. is enabled. The part which connects with the tubular-shape section of this narrow diameter integrally constitutes the shape of a taper, urine flows smoothly.

When the thickness of the taper-like section is too thin, a urinary flow may be overdue with kinking etc.

Therefore, it is more desirable to be a little thicker.

Furthermore, the other end of this taper-like section is integrally connected to the tubular-shape section of a large diameter, the adhesive substance is applied to the outside face of the tubular-shape section of this large diameter.

An adhesive substance may be applied to the whole tubular-shape section of a large diameter, and may be applied partially.

However, also when applying partially, in order to prevent urine leakage, it is necessary to apply that there is no cut on a whole circumference.

Even when the tubular-shape section of this large diameter has a uniform diameter, it may become taper-like somewhat and the adhesive substance is applied uniformly, what is sufficient is just to be able to prevent urine leakage.

Moreover, the glans of that next connects the tubular-shape section of this large diameter to the part which has opening of the shape of the plus taper caught slightly, a minus taper, or a right angle, integrally.

This vent is good in any form, if the urethral openings of the glans penetrate.

That is, for this urine-sampling catheter penis connection part for males, the outside face of the tubular-shape section of a large diameter is an entanglement

to inside along a penis by pressing and pushing the front end of the glans to the vent of the shape of a plus taper, a minus taper, or a right angle, it is made to make a penis adhered * fixed by the adhesive substance applied to the outside face of the tubular-shape section of a large diameter.

This invention was perfected.

By use of this urine-sampling catheter penis connection part for males, wearing cannot take time but a person with trouble in a hand comparatively can also equip now easily, and the inflammation problem of the glans section surface was also solved.

In addition, it is also free to use it, after winding the protection coating film of easily peeling on the adhesive substance applied to the outside face of the tubular-shape section of a large diameter and removing.

[0006]

[EXAMPLES] An Example demonstrates this invention still more concretely below.

However, this invention is not limited to the Example itself.

[EXAMPLE 1] The whole picture of the urine-sampling catheter penis connection part for males of this invention was shown in FIG. 1.

Penis (8) is equipped with this urine-sampling catheter for males, the tubular-shape section (5) of the narrow diameter of the other end is connected with joint (6), and this joint (6) was connected to the urine collection container through the urine withdrawing pipe (7).

The urine-sampling catheter penis connection part for males of this invention was formed by the continuous body of the natural-rubber group elastic material containing the four principal part (4), i.e., the taper-like section, the tubular-shape section (2) of a large diameter, vent (1), and the tubular-shape section (5) of a narrow diameter.

As shown in FIG. 2, joint (6) is inserted in the tubular-shape section (5) of the narrow diameter of the urine-sampling catheter penis connection part for males, the other end was connected to the urine withdrawing pipe (7) linked to a urine-sampling container.

The taper-like section (4) is roughly taken as a cone, since glans (9) was inserted easily, the tubular-shape section (2) of a large diameter set part (3) which

enlarged 5 mm or more for the diameter from the diameter of the maximum expansion of penis (8), and applied the adhesive substance to the outside face of the tubular-shape section (2) of a large diameter.

When the front end of the glans is applied and pushed to vent (1) of the urine-sampling catheter penis connection part for males carried out in this way and wearing to a penis is tried, the whole urethral openings penetrate through vent (1), it stops at the position which glans (9) projected about 2/3 to vent (1), and this urine-sampling catheter penis connection part for males is adhered * fixed by the adhesive substance at a penis, it came to be able to perform a retain of a fluid-tight state.

[0007]

[ADVANTAGE of the Invention] For this invention, the outside face of the tubular-shape section of a large diameter is an entanglement to inside along a penis by pressing and stuffing the glans into the vent of the urine-sampling catheter penis connection part for males, as explained in full detail using the Example, a penis is adhered * immobilized by the adhesive substance applied to the outside face of the tubular-shape section of a large diameter, and the objective could be attained without seeing omission from the penis of a catheter penis connection part, and a urinary leakage.

Wearing this catheter can be performed simply and quickly, and since the certainty of wearing is also high, it can be said that this invention is very significant invention.

[BRIEF DESCRIPTION OF THE DRAWINGS]

[FIG. 1] The perspective diagram of the urine-sampling catheter penis connection part for males

[FIG. 2] Sectional drawing which shows one part of the urine-sampling catheter penis connection part for males, a joint, and the urine withdrawing pipe

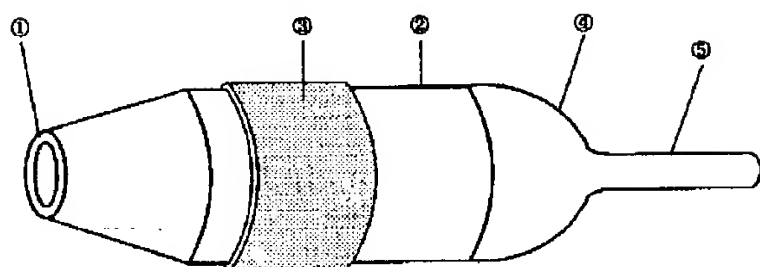
[Description of Symbols]

(1). vent

(2) The tubular-shape section of. large diameter

- (3). adhesive application part
- (4). taper-like section
- (5) The tubular-shape section of. narrow diameter
- (6). joint
- (7). urine withdrawing pipe
- (8). penis
- (9). glans

[FIG. 1]



[FIG. 2]

